

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Figure 2 to include reference sign 24 as requested by the Examiner. This sheet replaces the original sheet for Figure 2.

Attachments: Replacement Sheets

Annotated Sheets Showing Changes

## REMARKS

Claims 1-6, 9, 11, 12, and 20 are pending in the present application. Claims 2 and 20 have been amended in this response. Claim 7, 8, 10, and 13-19 have previously been cancelled. New Claims 21-24 have been added.

In the Office Action dated October 28, 2010, the Examiner objected to the drawings as they did not include reference sign 24. Figure 2 has been amended to address the Examiner's concern and the Applicants request that the Examiner withdraw this objection.

In the Office Action dated October 28, 2010, the Examiner objected to Claims 2 and 20 as being unclear regarding "together forming a core filled wire". Applicants have amended these claims to recite "together the comparatively radiopaque material and the cover layer form a core filled wire" as the Examiner has suggested. Applicants request that the Examiner withdraw this objection.

In the Office Action dated October 28, 2010, the Examiner rejected Claims 1-6, 9, 11, 12, and 20 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

With regard to claims 2 and 20, the Examiner stated that he did not find support for the limitation "including legs defining apertures" in the specification as originally filed. The Examiner then stated that he did find support to claim that the legs define the mesh [0019] in that the legs 12 form support portions 14 which define the mesh 18. The Examiner also noted, however, that the mesh is not necessarily the same as the apertures [0022]. To obviate this issue, Applicants have amended independent Claims 2 and 20 to recite that the legs define a mesh.

The Examiner also stated that an aperture results from cutting out a leg 12 or a connecting leg 16. The Examiner suggested that limitations be changed to "including legs and

apertures, wherein the apertures are produced by cutting out legs, and having at least one marker element welded in at least one of the apertures." Applicants have now added these limitations as new dependent Claim 21.

With further regard to claims 2 and 20, the Examiner stated that he did not find support to claim that the marker element is "welded to at least one leg and disposed in at least one of the apertures" in the specification as originally filed. The Examiner stated that in all instances of welding the marker elements into the apertures, the marker element is welded at two places. The Examiner further stated that applicants appear to be mixing the embodiment of Figure 1 and the embodiment of Figure 4, in that the embodiment of Figure 1 possesses apertures, while the embodiment of Figure 4 does not. Applicants have placed the limitation of the "marker element ... welded in the ... aperture" into new dependent claim 21. Thus, amended Independent Claim 1 may read on either the embodiments of Figs. 1 or 4, thus obviating this rejection, which the applicants request the Examiner withdraw.

In the Office Action dated October 28, 2010, the Examiner again rejected claims 1-3, 6, 9, 11, 12, and 20 under 35 U.S.C. 102(b) as being anticipated by Dang (6,471,721).

The Examiner has again asserted that the applicant has presented product-by-process limitations in Applicants' claims. The Examiner noted that it has been held that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art (emphasis added), the claim is unpatentable even though the prior product was made by a different process." Please see MPEP 2112 and *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The Examiner noted that any article that has the resultant structural limitations despite being formed by a different process will be held to anticipate the claimed article.

The Examiner has again asserted that the fact that the apertures have "at least one marker element welded in at least one of the apertures" is a product-by-process limitation in

that the resultant article could have all of the apertures filled in with marker elements, and therefore there would not be any apertures in the finished article.

Independent Claims 2 and 20 recite, in pertinent part, a stent having a carrier structure including legs defining a mesh, and having at least one marker element welded to at least one leg, and the marker element including a comparatively radiopaque material filling and completely enclosed by a cover layer of a metal or metal compound including material other than the comparatively radiopaque material together the comparatively radiopaque material and the cover layer form a core filled wire.

First, Applicants note that the claims recite a carrier structure including legs defining a mesh. Second, the claims recite a marker element welded to at least one of the legs. The claims specifically recite that the marker elements includes a comparatively radiopaque material filling completely enclosed by a cover layer of a metal or metal compound including material other than the comparatively radiopaque material together forming a core filled wire. The legs and the marker elements are two distinctly separate claim elements. Applicants point out the Examiner appears to be using the struts of Dang to serve as both the legs and the marker elements.

Next, Applicants note, as evidenced by the accompanying selection from page 13-27, section 13.3 Welding of *Mark's Standard Handbook for Mechanical Engineers*, by Eugene A. Avallone and Theodore Baumeisert III, a weld is defined by a localized coalescence of metal produced by heating. As previously presented, this weld is a physically discernable thing. This limitation does not merely recite how two parts of the stent are joined but describes part of what it is. Welding is a unique uniting process in metallurgy and leaves a discernible bond.

The Examiner has again cited Dang as disclosing this structure. However, Dang discloses a material inserted into grooves (see col 5 line 39) with a thin layer covering the material (see col 5 line 67 - col 6 line 1). The grooves are formed in a unitary body cut from tube stock. These finished articles are easily differentiable.

The Examiner has stated that with regard to Dang the tube stock 11, with the cylindrically cut grooves 12, filled with radiopaque material 13, and then covered over with the sputtered coating 14 read on applicants' at least one marker element or core filled wire. The Examiner has included a limited cross-section of one strut of Dang, Fig. 5 and a cross-section of the core filled wire of the present case, Fig. 3. Applicants note that in Dang the material 13 is placed in grooves 12 in the tube stock 11. Even in the finished product, this merely leaves traces of material 13 in the overall unitary body of the stent 10 with the entire structure covered in sputter coating 14. One would no more confuse this structure with a core filled wire than one would confuse an encapsulated circuit board having solder traces with an electrical wire.

Further, the Examiner has noted that the marker elements are integral to the carrier structure; the Examiner has also, however, noted that the longitudinal sections of the stent 10 spanning the distance between the cylindrical marker elements are apart of and also read on applicants' carrier structure (Figure 4). The Examiner then states that the radiopaque material 13 is completely enclosed by the tube stock 11 and the sputtered coating 14, which together (14 and 11) read on applicants' cover layer. The claims specifically recite a carrier structure including legs defining a mesh and specifically recite a marker element welded to at least one of the legs. The splines of Dang do not alone form a mesh. Thus, the Examiner appears to be using the struts of Dang to serve as both the legs and the marker elements. However, the Examiner then states that although formed by a different process, the Examiner deems the cover layer (14 and 11) has the same resultant structure as a hollow wire into which the radiopaque material fills the core thereof as claimed. The Examiner then adds that additionally, although the marker elements are integral to the carrier structure and not 'welded to at least one leg...' as claimed, the Examiner deems the resultant structure to be the same, and therefore the device of Dang continues to anticipate the claimed invention as well as the requirement that the "legs define apertures (mesh)." Again, in the pending claims the core filled wire is a separate element from the carrier structure. If the marker elements are integral to the carrier structure they do not read on the claims.

Claims 2 and 20 have been amended to recite in pertinent part a stent comprises carrier structure comprising a cut out metal tube including legs defining a mesh. This describes what

the carrier structure is. Separately welded to at least one leg is a marker element including a comparatively radiopaque material filling and completely enclosed by a cover layer of a metal or metal compound including material other than the comparatively radiopaque material together the comparatively radiopaque material and the cover layer form a core filled wire. Applicants again note that a weld is a unique bond and a discernable feature.

Further the Examiner has again stated that the stent 10 of Dang reads on Applicants' carrier structure and comprises a radiolucent material. The Examiner noted that the stent is produced from a cutout metal tube stock 11 (see Figure 1) and that the device may have radiopaque material 13, which the Examiner stated may read on Applicants' comparatively radiopaque material, incorporated therein (col. 5, lines 38-41). The Examiner then noted from Figures 1-3 that the radiopaque material is incorporated in cylindrical cut grooves 12 around the circumference of the tube stock (Figure 1-3) and that the cylindrically cut grooves are then covered over with the sputtered coating 14. The Examiner then stated that the tube stock 11, with the cylindrically cut grooves 12, filled with radiopaque material 13, and then covered over with the sputtered coating 14 read on Applicants' at least one marker element and that the marker elements are attached to the rest of the carrier structure 10 (Figure 4). The Examiner then noted that the marker elements are integral to the carrier structure; however, the longitudinal sections of the stent 10 spanning the distance between the cylindrical marker elements read on applicants' carrier structure (Figure 4).

Applicants again point out that if the longitudinal sections of stent 10 are compared to the carrier structure a recited in claims 2 and 20 the Examiner will see that while the carrier structure, in the present applications, includes legs defining a mesh; the longitudinal sections, of Dang, (without the cylindrically cut groove portions) are merely a series of independent unconnected parallel portions which form no connected shape let alone define any apertures.

Additionally, in the Office Action, the Examiner has deemed the marker element (14, 13, and 11) in the form of the cylindrically shaped marker element going around the circumference of the stent has the same resultant structure as a marker element welded to one of the legs, as claimed. Applicants again note, as stated above, this would only leave a series of

parallel unconnected longitudinal members to form the carrier structure, which cannot form the carrier structure recited in the claims which includes apertures.

Again, the Examiner has stated that this is the same resultant structure because each cylindrically shaped marker element is joined to other cylindrically shaped marker elements by longitudinal sections of the stent 10 spanning the distance between said cylindrical marker elements and that if there was no cylindrically shaped marker element, the lack of that element would read on an aperture. However, Applicants note that the independent claims have been amended to recite in pertinent part that the legs of the carrier structure define the apertures. It is impossible for a series of parallel unconnected longitudinal members to define apertures. The struts cannot be legs and marker elements and the Examiner has not pointed out any element that corresponds to a weld.

In the Office Action dated October 28, 2009, the Examiner rejected Claim 4 under 35 U.S.C. 103(a) as being unpatentable over Dang (6,471,721) as applied to claim 3, in view of Applicants' own admissions; and rejected Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dang (6,471,721) as applied to claim 2 in view of Kranz et al. (6,312,456).

These claims are both ultimately dependent from Claim 2 and contain all of the limitations recited there in and are patentable over the art for the reasons stated above. As such, Applicants request that the Examiner withdraw these rejections of the claims.

New claims 21-24 are all ultimately dependent from Claim 2 and contain all of the limitations recited there in and are patentable over the art for at least the reasons stated above. As such, Applicants request that the Examiner allow these claims.

The outstanding Office Action was electronically transmitted on 28 October 2009. The Examiner set a shortened statutory period for reply of 3 months from the mailing date. This response is dated 28 April 2010. Therefore, the Applicants believe that this response is properly filed with a request for a three-month extension of time. The Applicants, however, hereby make a conditional petition for any further necessary extensions of time for response in

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the event that such a petition is required. The Commissioner is authorized to charge any fee required with the filing of this paper or to credit any overpayment to Deposit Account 15-0450.

Respectfully submitted,

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